

# The Vision of Global Internet Freedom

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**Abstract**— The Internet and development of social media has made new forms of communication and connection among individuals possible. It enables individuals to express themselves and supports the free flow of information. Numerous governments try to deny these rights by controlling and censoring the Internet and imposing laws to restrict Internet freedom. With the increasing power and influence of technological innovations, the methods of control used by some governments are becoming less transparent. Societies expect Internet freedom and protection from computer related crime. Internet freedom aims to provide both – regulated freedom by defining rules to protect from crime and terrorism and freedom from surveillance and regulation by governments. Striking the balance between regulation and protection of interests is a delicate task for governments and societies.

**Keywords**— Copyright, Free Speech, Internet Freedom, Communication Networks, Sharing, Digital Borders, Privacy.

## I. INTRODUCTION

INFORMATION and media ethics as autonomous research areas focus on the compatibility of the fundamental right of freedom of expression and the limitation of Internet freedom.

Ever since the Internet was founded in the 1960s, to ensure fast and unrestricted communication, the regulation and establishing of rules for users and providers has been a controversial topic. The level of censorship and Internet restrictions such as full Internet shutdowns by authoritarian regimes in the Arab Spring, a revolutionary wave of civil resistance in the Arab world that started in 2010, was unprecedented and has been a topic which drew political and media attention worldwide. Countries such as China, Syria, Iran, Cuba are examples of authoritarian regimes which block and filter the Internet, restrict the online access of end-users and impose pressure on bloggers and Internet service providers to restrict freedom of expression. But democratic countries have also drawn attention. The American national security agency (NSA) affair and the revelations by Edward Snowden and “The Guardian” in 2013 about top-secret mass surveillance programs have fuelled massive public debates over Internet freedom. The global monitoring by the United States and UK governments, their secret data collection and data storage activities with far reaching electronic surveillance data mining programs such as Prism, has stirred the western world and opened a debate about freedom and limits of freedom on the Internet in democratic nations. Limitations of Internet freedom which is culturally, politically, and/or

economically motivated are closely monitored by the public and receive a great deal of media attention.

The Internet, as the world’s main communication system and a virtual space, shapes our societies in various ways. Growing social media and networked communication creates new tools for people who were not previously able to communicate to the public. “New platforms create openings for social, cultural, economic, legal, and political change and opportunities for diversity and democratization for which it is worth fighting” [1]. The terms of public participation for citizens are in a state of change and people can play a more active role in public life. The Internet expands the possibilities of transferring an individual opinion to the public and enables the establishment of communication networks; social networks are “spaces of autonomy” and by connecting to each other users are able to form networks and coordinate actions and social movements, they create communities [2] which is a ‘thorn in the side’ of authoritarian regimes. Governments apply manifold actions to limit Internet freedom, consciously or not.

Freedom of expression and the protection of Internet freedom have a strong presence in democratic societies. Internet freedom concerns aspects of freedom and freedom of expression, but it also concerns security and justice and the protection of minority interests, regulated by law and order. In general there is an agreement that Internet users should be prevented from accessing certain content on the Internet but a balance between control and information sharing has to be found [3]. Censorship and restrictions on the Internet have focused attention on governments’ Internet policies [4] in democratic and in authoritarian regimes.

Thoughts about Internet freedom are strongly connected with thoughts about media freedom and political settings. Although the Internet is a global media, it is limited by national conditions and the level of Internet freedom is dependent on the level of freedom in the individual country. Internet freedom can be limited by local governments, manifesting in a political system to repress political dissent or in the exposure of official corruption, Interests in respect to Internet freedom are competing, creating continuous worldwide controversy, raising the questions of if and how it is possible to strike a balance between these competing positions.

Besides the role of the state, large corporations such as Facebook, Google, Yahoo or Microsoft design the Internet and are the guardians of user data. The tracking and usage of Internet data and the question of access to this data by government or industry especially in relation to user identification raises questions about privacy and liability.

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## II. INTERNET FREEDOM

### A. *The vision of global Internet freedom*

The defining of Internet freedom is a broad and controversial subject – and there is no generally agreed upon definition of the term. The discussion surrounding Internet freedom raises debate about defining the functioning and the rules of the Internet, and about the societal framework in which it exists. The Internet as an interactive communication network [3] is in reality a network of networks, in a technical sense it is a set of subnets and aggregates of subnets, which share registered IP address space and they exchange information about the reachability of those IP addresses [4]. In the earlier days of the Internet it was viewed as free cyberspace beyond the reach of “real-space regulation” and that governments could not interfere with online life was the dominant idea [6,7]. In the years since, the vision of an unregulated online world has faded [8]. And “so far no cyberspace can exist without tangible subsistence including the devices, the technicians, the users and the socio-political context in which all these non-virtual components are put together to support and arrange the mediascape of the virtual world [9]. Internet Freedom is the freedom for users to connect and communicate in an online world without borders, to access and share information, such as texts, links, audio content, videos and the freedom to express opinions without being secretly monitored or restricted by governments or other interest holders. Internet Freedom is an “umbrella concept that describes the rights of the Internet user to freedom of expression, to have access to any information and free technology, to share and communicate with others in privacy, and to have control over the data used on a neutral and un surveillanced Internet” [10].

Democratic countries stand for “a single Internet where all of humanity has equal access to knowledge and ideas” [11] and associate Internet Freedom with Human Rights but the restriction of Internet Freedom carried out by governments or other interest holders varies from country to country. “Even if globalization, westernization and democratization may be claimed as the major trends in the virtual land, they do not dismiss the existence of localization, de-westernization and the continuation of authoritarian rule as constituents of the empirical world online” [9]. Political boundaries and national sovereignty are protected by governments, leading to a fragmented Internet with digital borders. The NSA affair showed that the limitation on Internet freedom is not only present in totalitarian regimes. The limitations on Internet Freedom are diverse in character and scope and vary among countries worldwide. The aim of this research is to find responses to the questions: are there conflicting visions and conflicting demands on Internet freedom and how do national and democratic settings affect Internet freedom.

### B. *Access to Internet a Human Right?*

Freedom of expression is a universally recognised human right, as defined in the Universal Declaration of Human

Rights<sup>1</sup>, under Article 19: “Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers” [12]. “The Declaration of Human Rights is generally agreed to be the foundation of international human rights law” [12]. Freedom of expression is linked to the debate around democracy and to the obligation of government to impart information. The Unesco report supports the views of Mendel, that this should include for example “maximum disclosure, obligation to publish, promotion of open government, and processes to facilitate access, balanced by considerations such as national security and privacy” [13].

The Universal Declaration of Human Rights was drafted in 1948, a long time before the Internet was invented [14]. Nevertheless, it provides entry points to interpret access to Internet and the right to freedom of connection as a human right.

As stated by Handelsmann and Kalantar, “Although not legally binding, the Universal Declaration of Human Rights contains several provisions that support the possibility of Internet access as a human right” [15]. The existing regulations do provide support but they are not legally binding. In non-democratic countries, human rights are not included in constitutions. Furthermore, legislating Internet access as a human right depends on national interpretation of freedom of expression and freedom of access to information. Some countries such as Estonia, France, Finland, Greece and Spain have already legislated Internet access as a fundamental human right of its citizens. Democratic countries promote the right to have Internet access as human right [11].

Debates about the right to freedom of connection are intensifying around the world. The more that liberal states increase measures to provide Internet access to their citizens and legislate it by law, more pressure is placed on neutral and restrictive societies to legislate Internet access as a human right [15]. In addition to freedom of expression, many countries provide legal guarantees for the right to freedom of information, to ensure that citizens will be informed about how governments act [13].

### C. *Status of Internet Freedom around the Globe*

Non-government organisations such as UNESCO, Freedom House and Open Source Foundation conduct surveys, research and analysis of freedom on the Internet in countries worldwide. They study and compare government regulation and restrictions which are relevant to the Internet, political censorship and violation against users of the Internet.

A Freedom House survey developed a methodology to capture country’s Internet Freedom environment through a set

<sup>1</sup> Other internationally recognised standards for human rights: International Covenant on Civil and Political Rights (ICCPR); International Covenant on Economic, Social and Cultural Rights (ICESCR). Other regional human rights conventions: European Convention, Charter of Fundamental Rights of the EU, American Convention, African Charter on Human and People’s Rights [13].

of twenty-one questions asking (among other questions) whether there are obstacles to accessing the Internet such as infrastructural, economic or political barriers; whether there are limits to accessing content by means of filtering, censoring and manipulation of content; and if user rights are violated for example by surveillance and limits on privacy. The survey covered 47 countries and each received a ranking on a scale (see fig. 1) of 0 to 100, with 100 being the worst and 0 the best. Each country also received an evaluation (combined score), where: 0-30=free, 31-60=partly free and 61-100=not free [16]. Other organisations such as OpenNet<sup>2</sup> Initiative use a similar approach, rating countries according to their levels of Internet filtering and censorship [4]. Quantitative rankings serve to direct critical attention to “the standards they seek to implement”, but one needs to be aware that designing a methodology to rank Internet Freedom involves subjective choices [4] and can therefore only be an indication.

The findings of the Freedom House study 2012 indicate that “restrictions on Internet freedom in many countries have continued to grow, though the methods of control are slowly evolving and becoming less visible” [16]. Government measures such as manipulation of the web through pro-government bloggers to influence public opinion have been adopted by more than a quarter of the 47 countries analysed by Freedom House [16].<sup>3</sup> Freedom House found out that “In 26 of the 47 countries assessed, a blogger or other ICT [information and communication technology] user was arrested for content posted online or sent via mobile phone text messages” [16]. The study also concludes that, of the 47 countries analyzed, “19 have passed new laws or other directives since January 2011 that could negatively affect free speech online, violate users’ privacy, or punish individuals who post certain types of content” [16].<sup>4</sup> Governments have imposed temporary shutdowns of the Internet during mass protests or political events and have banned social media sites such as YouTube, Facebook, Twitter, or equivalent services and other politically relevant websites. China has officially announced that websites banned in 2009 will be made available, in a rare exception to strict controls and that they will allow access to Facebook, Twitter and other websites banned nationwide.<sup>5</sup> Facebook, Twitter, YouTube, Wordpress, Blogspot and many sites have been forbidden since 2009.<sup>6</sup> Localized Internet shutdowns occurred for example in China and Bahrain during anti-government protests, the Qadhafi regime in Lybia prior to its

downfall and selected regions in Syria during 2011 and 2012 [16]. Even in more democratic countries governments are filtering and blocking Internet content in their anti-terrorism efforts, which is in the interest of society but could also limit Internet freedom [16].

### III. LIMITATIONS OF INTERNET FREEDOM

#### A. Digital Divide

Worldwide, 2.4 billion people had access to the Internet at the end of 2012 (table 1) and the Internet is the mass communication media of the digital age, it connects people to endless networks that transmit information around the world [3]. The average rate of Internet penetration measured in terms of access was in 2012 34.3% of the worldwide population and has been increasing over the last years as an increasing technological convergence and wireless mobile usage could be observed which is of significant importance for the developing world [17].

World Regions	Population (2012 Est.)	Internet users Latest Data	Penetration (% Population)
Africa	1,073,380,925	167,335,676	15,6%
Asia	3,922,066,987	1,076,681,059	27,5%
Europe	820,918,446	518,512,109	63,2%
Middle East	223,608,203	90,000,455	40,2%
North America	348,280,154	273,785,413	78,6%
Latin America/Carib.	593,688,638	254,915,745	42,9%
Oceania/Australia	35,903,569	24,287,919	67,6%
<b>WORLD TOTAL</b>	<b>7,017,846,922</b>	<b>2,405,518,376</b>	<b>34,3%</b>

Table 1: World Internet usage and population statistics [18].

In some countries it is still a privilege to have access to the Internet [19]. Other countries define it as a right and they moreover define minimum bandwidth, like in Finland where it has been decided that broadband Internet access should be considered a legal right and that every person should have access to a minimum of 1 Megabit broadband connection and it is even planned to extend this to 100 Megabit broadband connection in 2015 [20]. The reasons for this digital divide have been in public discourse since the beginning of mass Internet distribution. The digital divide shows the actual exclusion of individuals from the Internet as a worldwide information and communication platform. As shown in fig. 1 some states do not ensure Internet access and a minimum bandwidth so that citizens cannot exercise the right of freedom of expression and have no or only limited access to the Internet. Fig. 1 depicts the relationship between Internet penetration rates and level of digital media freedom, showing the impact of restricted Internet access on Internet Freedom. Free countries are on the left (0-30), partly free on the middle (31-60) and not free on the right (61-100) [16]. Each point reflects a countries’ Internet freedom score in relationship to the Internet penetration in that country. It can be seen that while some countries limit Internet freedom mainly by restricting the access (such as Cuba) others have high Internet penetration but use other methods such as Internet filtering,

<sup>2</sup> available: <https://opennet.net/research>

<sup>3</sup> according to the study, the following countries used pro-government commentators to manipulate internet discussions in 2011-2012: Cuba, Egypt, Ethiopia, Iran, Malaysia, Russia, Saudi Arabia, Syria, Thailand, Ukraine and Venezuela.

<sup>4</sup> according to the study: Bahrain, Belarus, Burma, China, India, Indonesia, Iran, Kazakhstan, Kyrgyzstan, Malaysia, Mexico, Pakistan, Russia, Saudi Arabia, Sri Lanka, Syria, Thailand, Vietnam

<sup>5</sup> Available: <http://america.aljazeera.com/articles/2013/9/24/china-to-allow-access-to-twitter-facebook-infretradezonereport.html> (accessed 24 September 2013)

<sup>6</sup> Information about blocked websites in China: [http://en.wikipedia.org/wiki/List\\_of\\_websites\\_blocked\\_in\\_China](http://en.wikipedia.org/wiki/List_of_websites_blocked_in_China) (accessed 24 September 2013).

ensorship or Internet shutdowns.

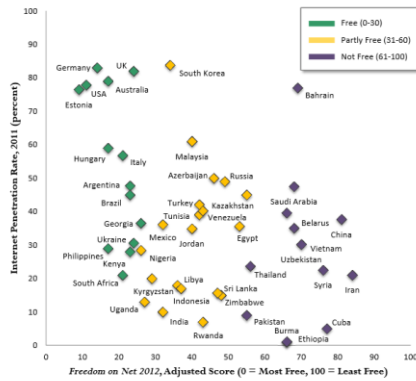


Fig. 1: Internet penetration and Internet Freedom [16]

A generational digital divide can be observed between the generations born before the Internet age and those who grew up digital [17]. There are serious inequalities between countries, within societies but also among groups of individuals, social classes, geographic areas and between religious, cultural, ethnic and gender groups and among users of information & communication technologies [21-24]. Essential preconditions to having Internet access are based on key factors such as sufficient income and level of education, the existing telecommunication infrastructure, the democratic setting within individual countries and the enabling of freedom of expression as a human right. At the same time there seems to be a long- and short run relationship between Internet usage and gross nation income, so enhancing Internet usage is an important component to improve prosperity in societies [25-26].

### B. Restrictions by Governments

It is a privilege of open democratic societies to have the right to unrestricted Internet access for everybody. This includes Internet access in general, with sufficient bandwidth, and to have unlimited, unfiltered and uncensored access to content. Exercising the right to freedom of expression, particularly through new media, pushes the limits of the democratic systems in place. Censoring the Internet is becoming a more widespread practice in both democratic and authoritarian states and normative judgments about Internet filtering are the focus of national and global discussions [4, 27, 28, 29]. Depending on the democratic setting of a country, access to content is restricted and democratic countries consider Internet filtering legislation to prevent access to certain content which is considered to be harmful [27]. "It is a question of finding the right balance between sometimes diverging principles, such as ensuring security and public safety without restricting other democratic principles such as freedom of expression and privacy" [27].

Authoritarian governments have always been characterized by a restricted broadcast and print media. Governments in authoritarian systems react with far-reaching methods of

controlling the Internet and limit the freedom to the Internet. Some countries with highly repressive governments, like Cuba, limit the access to only a small part of the population by restricting the public access points to the Internet, increasing the prices to access the telecommunication infrastructure and limiting the bandwidth. However it is not only authoritarian governments who impose such restrictions. Similar responses to Internet freedom can be seen in a wide range of countries and governments have developed a number of tools to control the Internet and to block any kind of 'undesirable' information [16]. On the other hand, Bambauer notes that "if a state's censorship is openly and fully described, carefully targeted, and responsive to popular demand, then objections to that country's filtering are properly aimed not at its on-line behavior, but at its larger shared values and policy choices" [4]. But what content should be filtered and blocked and how is legitimacy to be defined? Depending on the normative views and democratic setting of a country, the restrictions to online content vary considerably. Bambauer introduced a framework to "guide the censor's scissors" and suggests four analytical steps which assess openness, transparency, narrowness and accountability [4]. This methodology with the introduction of quantitative metrics could be applied by public and private institutions to evaluate and guide corporate decisions and to define how well censorship is described and why it is performed, so as to reach accountability and legitimacy [4, 29] of censorship, so that the user can see that filtering has been applied and why [4, 27]. However, increasing political efforts to regulate the Internet can be observed and Internet regulation draws political and media attention.

Legal protection instruments, like ACTA (Anti-Counterfeiting Trade Agreement) and three strikes laws like the French HADOPI (French: Haute Autorité pour la diffusion des oeuvres et la protection des droits sur Internet) or the Digital Economy Bill in UK have been criticised and attacked by the public and media, interpreting them as a violation of freedom of expression. "The study's findings reveal a significant uptick in citizen activism related to internet freedom, which has produced several notable mobilization efforts and legislative victories. In several European countries, fierce public opposition to the Anti-Counterfeiting Trade Agreement (ACTA) has prompted governments to step away from ratification of the treaty" [16].<sup>7</sup>

Having control over the Internet is also a technological issue. New and powerful control technological instruments such as deep packet inspection (DPI) have been developed, enabling the interception and logging of Internet traffic, they also enforce copyright, track user behavior, cut bandwidth, congest traffic, monitor and filter content and many other actions [30]. While engineers develop new control technologies, societies need to be aware of how they are used [31]. According to Daniel Calingaert, democratic countries should invest in and maintain control over innovative

<sup>7</sup> On 4 July 2012, the European Parliament voted against ACTA.

technologies, which make Internet control possible, avoiding the censorship and monitoring which occurs in less democratic countries, “and extend greater support to digital activists in repressive environments, so that Internet users can more effectively assert their rights for freedom of expression online” [32].

### *C. Privacy threats on the net*

The 2.4 billion Internet users who constantly upload pictures and videos, post tweets and messages, use social networks and search engines, leave an enormous amount of personal information and private data on the net. Affordable data storage, global reach and the easy retrieval of data have led to a paradigm shift in society from “not forgetting” to the creation of a global memory [33]. Powerful Internet conglomerates store information about their users. Search engines such as Google and Yahoo store every query, cookie and log-in data and keep records for many months. Facebook stores data and is one of the biggest data warehouses at present. Keeping individualized records may have advantages, as such records may assist in prosecuting terrorism or crime, but the transparency of these actions and the awareness of end users must increase. As electronic transmission may be insecure, this data may provide insights into an individual’s personality, habits and interests. It is recognised that “privacy, as a fundamental right, impacts on other rights and freedoms, including freedom of expression, association and belief” [34]. In democratic nations, the protection of privacy is given high priority and users expect their data to be used responsibly. In general, two groups have a high level of interest in the collection and retention of personal data: the state and business. Financial and law enforcement authorities or secret services use Internet access data to enforce law or track political interests and activity and business uses personal data for advertising and marketing purposes. The Internet is not an anonymous cyberspace. The information age has made “data more vulnerable to privacy violation” ... “privacy therefore is no longer a local issue: it has now a global focus” [35]. Users can be identified via their Internet service providers (IP-address and log files), and cookies, search engines, electronic commerce, HHTTP protocols and, browsers all track user data. In order to protect privacy, companies often make this data anonymous but studies have revealed that they can still connect it to an individual [34]. Data can also be found in cyberspaces because huge databases are difficult to protect. Repressive governments require users to register their accounts, using their names and user data to identify and to hold users responsible for online posts and data. Some governments develop huge databases which collect data and monitor citizens. They use data profiling to create a secret watch list of people “who are judged to be a security threat” [34] and who are monitored in the fight against terrorism often in ways which violates existing privacy laws. Sometimes this procedure becomes public and leads to considerable irritations. Especially if it appears that Google, Facebook, Apple, Microsoft and Yahoo provide access to their servers and user

data. Companies like Facebook, Twitter and Google should be the gatekeepers of their users’ private data, protecting and taking responsibility for user privacy. Morozov has doubts about how well user data is protected: “The West excels at building and supporting effective tools to pierce through governments, but it is also skilled at letting many of its corporations disregard the privacy of their users, often with disastrous implications for those who live in oppressive societies” [36]. Every time users comment or perform searches on the Internet via Facebook or Google, or simply comment on a newspaper’s website, they leave a public trail on the Internet. With the ‘like’ button, Facebook tracks user behavior on many sites. Facebook has over 1 billion users. It has access to a huge amount of data. This information has significant economic value as it is used for marketing purposes, with the permission of their users. Most information seems simply lost in cyberspace - “this is what privacy scholars call “security by obscurity” [36]. However, even though information may be ‘floating’ in cyberspace, it can be located and used or misused by industry or by governments to predict public opinion and to repress users in oppressive societies.

### *D. Internet Service providers*

Internet service providers offer Internet access to end users, they are intermediaries between the content source and user. As they supply services to the public, they must comply with legislated service provider rules and hold an individual carrier license. Internet service providers are obliged to act in compliance with consumer protection obligations and comply with regulatory obligations in the individual country. This means that regulators can take measures against service providers (scope and range depends on national law) in order to ‘protect’ consumers. In authoritarian regimes the protection of consumers often goes too far and interferes with the right to have free access to information. According to national laws, service providers must record the Internet communication of its users, which allows the state to monitor their citizens to quite an excessive degree. “The collection and use of personal information by Internet service providers has increased sharply” and “the illegal use and disclosure of personal information is occurring more frequently” [37]. To cope with these incidents, systematic measures are required to prevent privacy infringement and the need for participation of governments to “enhance the enterprise-level privacy protection industry and to promote personal information security industry [37].

A significant threat to Internet freedom is the centralized ownership of ISPs by governments or corporations and the therefore controlled traffic of the Internet. Politicians in democratic countries need to face the challenge of focusing on the anti-trust dimension of Internet traffic. The Internet is borderless, which makes the question about liability for content challenging to answer. Besides the provider of the content, can the intermediaries - as hosts of online platforms - such as YouTube or Google video also be held responsible for online content?

The main forms of criminal online activity such as child pornography, hate speech, terrorism, defamation or copyright infringement are usually regulated by national criminal codes [38]. In general, users are liable for their online content, just like they are in the offline world. However, given the borderless nature of the Internet and the possibilities to upload content via anonymous IP-addresses in regions where freedom is not protected but unregulated or poorly regulated, the question about which law applies can arise. Furthermore, what about the possibility of an Internet watchdog? Who is in charge of supervising the content on the Internet? Preventing the intermediaries from being liable for third party content is critical for Internet freedom. According to Wong “Governments should instead strengthen and adopt policies that protect intermediaries as key enablers of innovation, human rights, and economic development” [39]. However the power of corporations to gather private identifiable information is a threat, and there is public fear of the misuse of user data as well as government surveillance [40].

The role of the Internet service providers differs between countries. In some nations, like in the United States, the government protects the intermediaries, in others – like Italy, the government force the intermediaries to be in charge.<sup>8</sup> Given the volume of content uploaded daily to platforms such as YouTube, the demand to have content supervised seems to be unrealistic.<sup>9</sup>

“Net neutrality is one of the more technical aspects of Internet regulation that has been viewed as a potential threat to freedom of expression online” [13]. It means protecting innovation by ensuring that all Internet traffic is treated equally [41]. Internet service providers hold a key position and it is the question how transparent broadband providers communicate the policies that govern the uses of their networks [41]. They can discriminate users by charging access fees and by managing bandwidth. The ISPs can identify power uploaders and downloaders and cut their bandwidth. Many people are worried that “ISPs will carry out discriminatory actions and online content will therefore not be accessible to everyone in the same way, possibly creating a two- or multi-tiered Internet” [13].

#### *E. Copyright and Internet Freedom*

Sharing content and the circulation of content on the Internet has become common practice. Mass-media content can be found on YouTube and other platforms, often being circulated unauthorized by users who are eager to legitimize and share content. [1] The vision of having free access to all intellectual property is in strong opposition to the actual dominant economical practice today. Given the new public attention, the concept of copyright protection is a subject of

<sup>8</sup> In February 2009 was reported that four Google managers were arrested because of a google video that showed the bullying of young boy. None of the employees had knowledge of the video. Available: [www.businessinsurance.com](http://www.businessinsurance.com) (accessed: April 19<sup>th</sup> 2013).

<sup>9</sup> 72 hours of videos are uploaded every minute and 4 billion hours of video are watched each month on YouTube. Available: [www.youtube.com/t/press\\_statistics](http://www.youtube.com/t/press_statistics) (accessed: April 19<sup>th</sup> 2013).

public discourse. With the new possibilities of circulating, exchanging and sharing music, films, scientific knowledge and visual arts, there is an increasing public focus on and interest in the treatment of intellectual property rights. The impact of media sharing on an economy and culture is significant and needs to be discussed. “Such discussions might draw on legal notions that consider the nature of the use [of shared media] (commercial or non-commercial, education or entertainment), the degree to which the use is transformative, the portion of the work being taken, and so forth in determining what constitutes piracy” [1].

With every user able to share and upload materials, the forms of private distribution have changed. File sharing systems allow shared access to files. The so called peer-to-peer (P2P) networks enable users to be both suppliers and consumers of shared files without a central server. Computers with the same sharing software are connected through the Internet and can share all digital file formats. This has led to the broad distribution and sharing of music, films and other digital formats. The use of Digital Rights Management Systems by hardware manufacturers, publishers, copyright holders and individuals to control and limit the access to protected material has been surrounded by controversy. At the same time multiple European scholars and judges have warned about the unstoppable increase of intellectual property rights [42]. The protection of copyright became a challenge; laws had to be extended to the online world.

Copyright issues are free-speech issues, with the inherent concern that copyright protection can limit free exchange of ideas and scientific thought and limit creativity. Users believe that their right to access digital material and share content are violated. The very idea of unlimited access to all content, with no or limited copyright protection and no control leads to the destruction of industries if no other business models have been found. Patry argues that it was the fault of music label executives who refused the offer by Napster which offered a consumer orientated business model [43]. Napster was a P2P music file sharing application which became very popular, since it allowed users to get the music they wanted for free. The songs that were being traded using the Napster application were under copyright Napster tried to negotiate and settle with record companies.<sup>10</sup> “We see in the Napster dispute the fundamental clash between innovation as an opportunity for new markets (Napster’s view) and as a perceived threat to existing ones (the record labels’ view). The same clashes have occurred with the motion picture and book publishing industries; rather than innovate; these industries have chosen to litigate. Litigation is a poor long-term strategy, serving only to delay the inevitable failure of the old business model [43].” In this sense, any discussion about copyright protection is commercially unavoidable, as copyright owners are challenged

<sup>10</sup> The Recording Industry Association of America (RIAA) sued Napster in December of 1999. Napster was found guilty of copyright infringement. Available: [http://www.ehow.com/about\\_4588479\\_what-is-napster.html](http://www.ehow.com/about_4588479_what-is-napster.html) (accessed: 20 April 2012).

to find other business models to adapt to the innovative development and to even utilize the underground communities, who are usually young people, and to find with them new ways of marketing and distribution of materials [44].

The vision to have free access to all intellectual property is in strong opposition to the actual dominant economical practice today. Given the new public attention, the concept of copyright protection is a subject of public discourse. To some degree an impact of copyright protection on freedom of speech and freedom of information seems acknowledged. As argued by Hugenholtz: “As a ‘natural’ right based on a mix of personality and property interests, copyright in continental Europe has its constitutional basis, if at all, either in provisions protecting rights of personality or in those protecting property. The ECHR [European Convention on Human Rights] does not expressly recognise copyright or intellectual property as a human right. Although neither the European Court nor the European Commission has ever been called upon to consider copyright as such, arguably, a fundamental rights basis for copyright may be constructed both from the ‘property clause’ of Article 1 of the Protocol to the ECHR and from the ‘privacy clause’ of Article 8 ECHR [42]”.

Is the concept of copyright protection in harmony with the freedom of expression or is this a competing relationship? “Assuming that every copyrighted work consists, at least in part, of “information and ideas” a potential conflict between copyright and freedom of expression is apparent.” [43]

While copyright protectors fight mainly for economic benefits [44, 45], those who oppose it see limited access to content as a violation of the values of free speech. McLeod argues that this controversy is made complex due to the framework which connects all intangible rights under one scope and within the larger trend of privatisation: “By using intellectual-property law as a thread that ties everything together, I gather what may seem to be a wild array of subjects: hiphop music and digital sampling; the patenting of seeds and human genes; folk and blues music; education and book publishing; the collage art of Rauschenberg and Warhol; filmmaking, electronic voting, and the Internet. However, all of these topics are connected to the larger trend of privatisation—something that pits economic values against the values of free speech, creativity, and shared resources.” [46]. Furthermore, he is saying that copyright was not created to specially benefit individuals or corporations but to protect and motivate creativity. Rigid protection of copyright ensures a mostly economic benefit - “depending on the plenty of areas where the conflict is getting worse for freedom of expression®” [46]. Broadly conceived, the idea of reforming copyright protection explores the erosion of the original model of copyright protection and its rules. Global circulation of all forms of media and information and freedom of expression come up against local copyright law and different political settings. Overall, it is a political discussion, a dilemma for governments and societies that need to find the right balance between regulation and protection of interests.

#### IV. EVALUATION

Defining the term Internet freedom is a challenge, and attempting to determine if a dilemma arises out of Internet freedom leads to the following paradox: in order to protect freedom, freedom must be limited. Even though societies in democratic countries expect Internet freedom, they simultaneously expect prevention from certain content - according to societies’ value frameworks - as well as protection from Internet related crime

The challenge for different legal and political systems and societies is to transfer applicable national rules to a fast-developing global medium, the Internet. States seek to control their information environment [28] and control is often exercised on a national level. The increased fragmentation of the Internet supports the rise of digital borders. Internet Freedom is therefore a national, rather than a global, affair - although the general demand of equal access to knowledge and ideas for all humans [11] is apparent.

The limitations on Internet freedom are manifold and could be analysed from various values-based perspectives. Worldwide Internet usage figures portray a global digital divide between developed and non-developed countries showing that only 35% of the worldwide population has access to the Internet. The increasing technological convergence and wireless mobile usage is of significant importance for the developing world [17] and is essential for Internet freedom. The phenomenon of governments to influence or repress the media is not unknown, but the Internet and social networks have created a new transparency and makes it possible to transmit public opinion about this. The range of Internet freedom in a country reflects the political degree of media freedom and democracy present in that country, but it is also evident that the Internet cannot solve the problems of repression in authoritarian countries.

As Castell argues, Internet is a technology of freedom but “it can make the powerful free to oppress the uninformed” [47]. The principle of freedom of expression and freedom to have access to information must apply to the Internet as it does to traditional forms of media. The development and passing on of innovative technologies to authoritarian regimes like deep packet inspection are both a support and a threat with their capability to powerfully control the Internet, and societies must realize that they have the responsibility of dealing with these powerful innovations transparently.

The Internet as a global medium is confronted with regulations at a national level. Finding global solutions seems to be the main objective of the future, while at the same time realizing that the rapid technological development is in some ways a moving target. Will copyright be enforceable in the future or will the fast rise of intellectual properties and the mass distribution of copyright bypass software and lead to a world without, or with limited, protection? The complexity of these topics seems to overwhelm societies. People have become sensitive to the term ‘freedom on the Internet’, and to the appeal of the vision that it represents. Establishing a

democratic framework is a global, national and regional challenge, and improving freedom, security and justice on the Internet is a balancing act.

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